

Comparisons of Job Characteristics

Focus Occupation: [Engine and Other Machine Assemblers \(51-2031\)](#)

Associated Occupation: [Machinists \(51-4041\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation: Machinists (51-4041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mechanical	6.8	18.0	14.7	<	Expanded education and/or training may be required
Mathematics	9.2	14.2	4.7	<<	Extensive education and/or training may be required
Production and Processing	6.0	12.7	8.8	<<	Extensive education and/or training may be required
Design	5.2	11.2	5.4	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	10.2	5.6	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 83

Focus Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation: Machinists (51-4041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Quality Control Analysis	5.9	12.6	10.1	<	A higher skill level may be required
Operation Monitoring	6.6	12.0	10.3	<	A higher skill level may be required
Operation and Control	5.4	11.1	8.1	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	10.2	8.0	<	A higher skill level may be required
Equipment Maintenance	3.5	9.3	7.9	<	A higher skill level may be required
Equipment Selection	3.3	8.6	5.5	<<	Extensive development of skills in this area may be required

Repairing	3.4	8.5	8.1	0	Current skill level may be sufficient
Installation	1.7	6.0	3.1	<<	Extensive development of skills in this area may be required
Technology Design	2.6	6.0	2.5	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 82			
Focus Occupation: Engine and Other Machine Assemblers (51-2031) Associated Occupation: Machinists (51-4041)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Control Precision	6.6	13.3	10.1	<<	Extensive improvement in abilities may be required
Finger Dexterity	7.6	11.6	10.6	0	Current ability level may be sufficient
Manual Dexterity	6.5	11.1	10.3	0	Current ability level may be sufficient
Multilimb Coordination	6.0	10.7	10.0	0	Current ability level may be sufficient
Reaction Time	4.8	10.1	9.1	<	Some improvement in abilities may be required
Hearing Sensitivity	5.6	9.3	8.5	0	Current ability level may be sufficient
Rate Control	3.8	8.6	4.6	<<	Extensive improvement in abilities may be required
Wrist-Finger Speed	3.2	7.3	3.8	<<	Extensive improvement in abilities may be required
Sound Localization	2.2	6.2	2.8	<<	Extensive improvement in abilities may be required
Speed of Limb Movement	3.2	6.1	4.4	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 79
Focus Occupation: Engine and Other Machine Assemblers (51-2031) Associated Occupation: Machinists (51-4041)		
Work Activities	Exclusivity of Activity	
Examine products or work to verify conformance to specifications	15	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Install equipment or attachments on machinery or related structures	48	
Lay out machining, welding or precision assembly projects	63	
Maintain welding machines or equipment	70	
Move or fit heavy objects	8	

Read blueprints	10
Read specifications	23
Read technical drawings	7
Set up and operate variety of machine tools	62
Understand technical operating, service or repair manuals	6
Use arc welding equipment	62
Use hand or power tools	2
Use knowledge of metric system	39
Use precision measuring tools or equipment	17
Use technical information in manufacturing or industrial activities	67
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 84

Focus Occupation: Engine and Other Machine Assemblers (51-2031)
Associated Occupation: Machinists (51-4041)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Cutting tools	18
Forming tools	2
Holding and clamping tools	3
Hydraulic presses	25
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Machinery for working wood and stone and ceramic and the like	12
Metal bending and forming machinery	17
Power tools	2
Prying and bending tools	10
Rough and finishing tools	5
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.